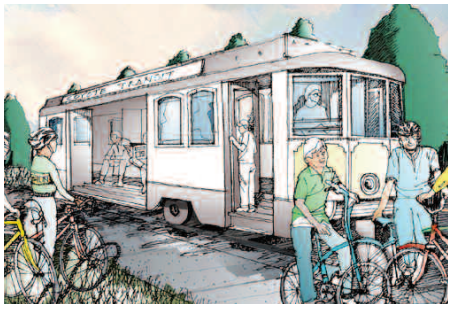
SECTION 6

STREET AND CIRCULATION SYSTEMS:

HOW DO PEOPLE GET AROUND?



INTRODUCTION

The core mobility strategy in the CVSP, unlike suburban and other models where the ease of driving and parking is a paramount design criteria, is the ability to travel between various land uses without a car, and to be able to do so in a healthy, interesting, safe and pleasurable way.

More than pedestrian crossing lights and sidewalks on busy roads, CVSP's mobility plan is explicitly meant to assure that vehicular accommodation does not negatively impact the pedestrian, bicycle, transit experience. It is aimed at accomplishing a network of beautiful, comfortable, tree-shaded pedestrian and bicycle-friendly streets that, by connecting housing, employment, retail, recreation, parks and open space, would create livable neighborhoods, and convenient workplaces and mixed-use districts. The streetscapes would reinforce a healthy and safe community by calming vehicular traffic and providing safe routes for children to walk and bike to school with a minimum of street crossings.

Transportation improvements described within this chapter are primarily those that are necessary to support the development of the specific plan through buildout. Because the Coyote Valley area is largely undeveloped, the types of pedestrian, transit, and roadway infrastructure being proposed are relatively significant in terms of scale and cost. The following objectives and related policies describe these infrastructure improvements that are vital for the development of Coyote Valley into the transit-oriented, mixed-use community that is envisioned:

NON-VEHICULAR CIRCULATION NETWORK

Objective 1: Create a system of pedestrian and bicycle friendly streets that support alternative transportation options instead of single-occupant driving, is walkable, human-scaled and transit-oriented, and directly connects workplace, mixed-use districts, neighborhoods, parks and open spaces together as one coherent system.

Conceptually, the plan's mobility strategy starts with the smallest, most urban and pedestrian friendly components and works up. It concentrates activities and densities within an easy walk to transit, prioritizes pedestrian safety and friendliness in intersection design, and creates a highly connective neighborhood network to enhance inter-neighborhood interaction.

Figure 16, the Non-Vehicular Circulation Map, illustrates pedestrian and bicycle accessibility within a permeable infrastructure network of grade separation for cars, transit, pedestrians, bikes and equestrians through the use of over-crossings, under-crossings, bridges and urban pedestrian only places.

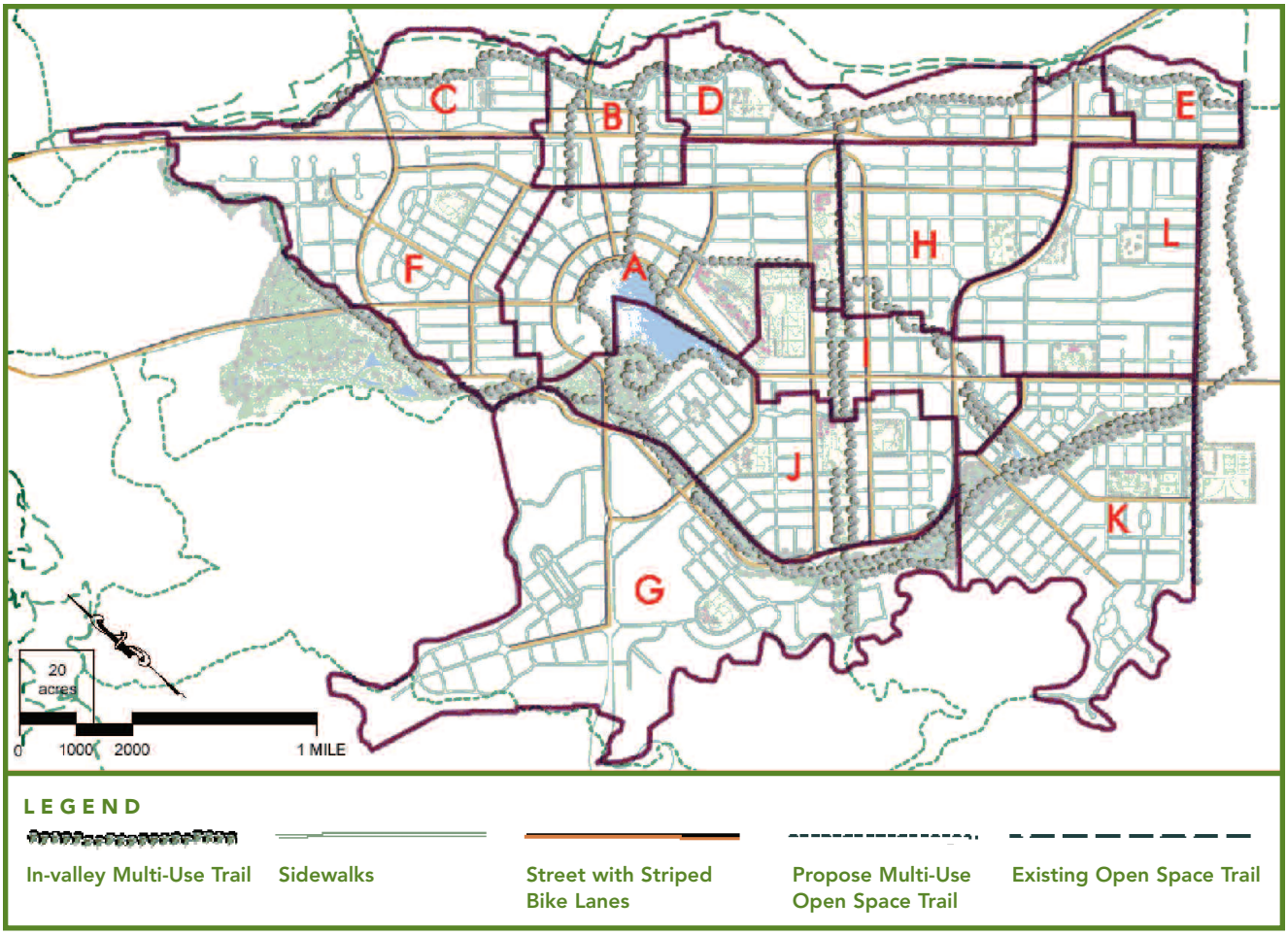
Policy 1: The layout of streets should be organized as an interconnected urban network of streets (i.e. a well-designed, walkable, "grid" of streets and sidewalks) to offer continuous, multiple routes to destinations to facilitate vehicular and non-vehicular mobility.

This policy is to ensure that neighborhoods, workplaces and mixed-use districts have direct transit, pedestrian and bike connections to schools, community facilities, retail shops, parks, open space and the county and regional trail systems.

SECTION 6

STREET AND CIRCULATION SYSTEMS

FIGURE 16: NON-VEHICULAR CIRCULATION NETWORK



Policy 2: Provide direct and convenient pedestrian and bicycle connections to transit from adjacent land uses.

Walking is the beginning and end of every transit trip, and by providing direct on-site connections to on-street amenities and functional transit stops transit ridership can be encouraged.

Because the non-vehicular circulation network is a vital component of the mobility strategy, the plan adopts a comprehensive approach to its conception and development. The non-vehicular network consists of various elements that would facilitate a comfortable and convenient non-motorized travel experience in Coyote Valley. Those elements include:

CONCEPT OF PATH (RATHER THAN STREET) FRONTING HOMES

1. Urban Pedestrian Only Places

- At the smallest scale, pedestrian only paths and places form the finest threads in CVSP's connective network. Urban homes and small specialty shops that rely on word of mouth can front paths and plazas that connect between street blocks. Historic terms such as mews and courts, speak to small urban oases shared, and maintained by a few neighbors. These delightful enclaves can be fully private enclosed courtyards, or in some cases connected by mid-block public walks, open during daylight hours and gated at night. To support pedestrian connectivity CVSP requires that all street bounded blocks in residential and mixed-use areas be a maximum of five acres; and that the combination of streets, through alleys and walkways create sub-blocks no larger than 2-1/2 acres.

The concept of path (rather than street) fronting homes has an open space transition value where small auto streets terminate in parking areas that access a public walk along an open space edge (i.e. Central Commons, Fisher Creek, Western hills and Oak savannah). In a grander urban pedestrian concept, CVSP includes a broad residential and retail lined pedestrian/ fixed guideway transit concourse over Coyote Valley Boulevard, safely connecting the Coyote Core District with Coyote Station. It is important to note that while these concepts primarily address pedestrian use, they can be combined with other modes of circulation as well.

2. Multi-Use Trail Network

The CVSP calls for over 20 miles of multi-use trails that are intended to provide a beautiful and continuous system for pedestrians, equestrians, and bicyclists circulation with minimal interface with roads. The trail system links the east and west hills together and provides connections to Downtown San José and other City and County recreation amenities. The network is composed of the following four types of routes:

a. Existing and proposed trail system through the Valley and adjacent hillsides to which CVSP trails are planned to connect. These include the proposed Bay Area Ridge Trail, the Coyote Creek/Llagas Creek Sub-Regional Trail, the Juan Bautista de Anza National Historic Trail, the West Valley Trail, the Bailey Avenue Trail and the proposed Laguna Seca Equestrian Trail. Proposed CVSP trails are planned to connect with these

b. A system of in-Valley trail loops along the Lake, Urban Canal and Coyote Valley Parkway. These trail loops includes: Fisher Creek Trail, Santa Teresa Bike Route/Calero Trail, Monterey Road Bike Route, Coyote Creek West Trail, Greenbelt Wildlife Corridor Trail, Coyote Valley Parkway Loop Trail, Urban Canal Walk, East-West Hillside Trail and the Lake Loop.

c. East-West connections across the valley to the adjacent hillsides along Palm Avenue, the Central Commons, Tulare Hill and Fisher Creek.

d. North-South connections that include the Coyote Creek County Park Trail, Fisher Creek Trail and the West-side Trail.

Objective 2: Create an interconnected network of multi-use trails that offer pedestrian, bicycle and equestrian circulation; that provides access to the workplace, residential, mixed-use districts, parks, open space, natural systems and habitat areas throughout Coyote Valley and along the hillsides surrounding Coyote Valley; and, that is independent from the network of streets.

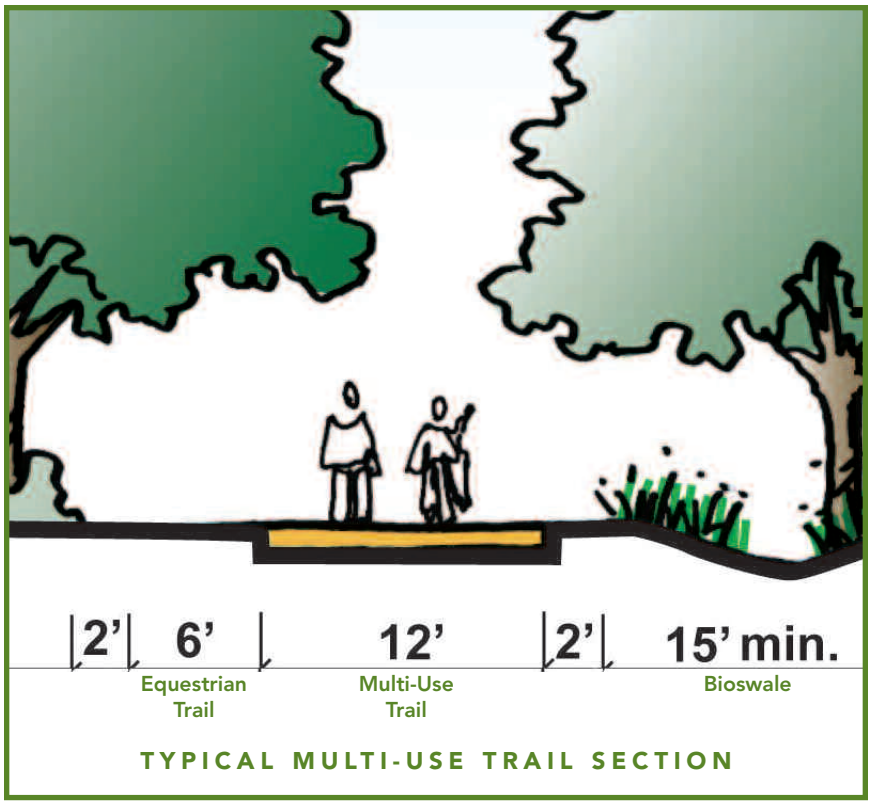
A trail network along Fisher Creek is envisioned with a 20-foot wide shared-use trail located on both sides of the creek. It would accommodate pedestrians and bicyclists on one side, while the other side would accommodate service vehicles and equestrians. The typical cross section design is 12 feet of asphaltic

concrete with two-foot and six-foot shoulders of decomposed granite. These trails would meander within the 100-foot riparian setback zones of the creek, depending on the habitat areas, elevation and the 100-year flood zone. Fisher Creek would have a continuous walkway along its banks when adjacent to Coyote Valley Parkway that would afford pedestrian access to adjacent urban areas and provides visual access to this restored riparian environment. Where adjacent to the Coyote Valley Parkway trail, the two trails can join to form one shared use trail.

The Coyote Creek County Park trail system, on the other hand, is a unique regional resource that offers scenic and recreational trail opportunities to the people living, working and visiting Coyote Valley. The existing system can be enhanced by constructing a new multi-use trail within the specific plan area along the west side of the Coyote Creek County Park, with pedestrian connections to the existing trail system and future development. Based on the Non-Vehicular Circulation Network, the proposed location of the Coyote Creek County Park West Trail is primarily on private property, with a portion on County property, where the Central Commons terminates at Monterey Road. The CVSP identifies potential staging areas west of the existing creek corridor that would provide an interface between the CVSP and the existing County Park trail system. By incorporating appropriate setbacks from the creek and avoiding sensitive habitat areas, the alignment of the new trail would preserve the environmental setting of the Coyote Creek County Park, while providing needed additional access along the creek.

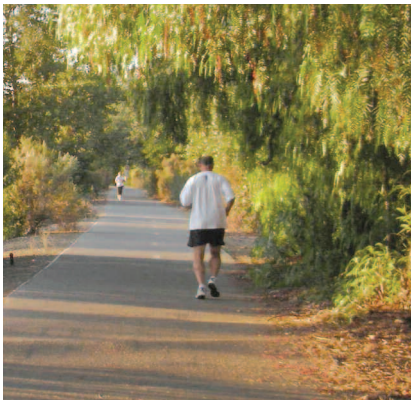
Policy 3: Provide a multi-use trail system along the realigned Fisher Creek.

FIGURE 17: TYPICAL MULTI-USE TRAIL SECTION



TYPICAL MULTI-USE TRAIL SECTION

MULTI-USE TRAILS



Policy 4: The existing Coyote Creek County Park trail system should be preserved and enhanced.

3. Bicycle Only Places

The CVSP takes advantage of Coyote Valley's flat terrain and compact urban form to maximize bicycle use and particularly bicycle commuting. A clearly defined network of on-street bicycle lanes (Class II Bikeways) combined with Coyote Creek County Park and Fisher Creek bicycle trails (Class I Bikeways) provides exceptional connectivity and access to all CVSP major workplaces as well as schools, parks, mixed-use areas and residences. Bicycle facilities are integral to the transportation infrastructure of Coyote Valley and are planned to enable people to use bicycles for short trips, recreation trips, as well as for daily commuting. In conceiving the CVSP bicycle network, care has been taken to recognize the inherent possibilities in the sharing of recreational bike corridors with pedestrians, and their apparent


BICYCLE ONLY TRANSPORTATION

incompatibility with bicycle commuter networks. All streets in Coyote Valley would be designed to accommodate bike traffic as a shared use. Dedicated bike routes are to be identified with signage. Bicycles shall be permitted on public transit. Secure bicycle parking would be required at commercial, workplace and commuter transit stop locations.

Objective 3: Ensure a network of bicycle routes to link and interconnect residential, workplace, mixed-use and community amenities, such as natural open space, parks, schools, transit, to City, County and regional trail systems.

Policy 5: Create a safe and convenient bicycle circulation network that encourages bicycle use and provides amenities for bicyclists.

Policy 6: Provide bicycle route signage and bicycle parking in all new developments.

4. Sidewalks

With a few exceptions, all CVSP street sections would include sidewalks on both sides.

Objective 4: Create walkable, higher density, mixed-use environments that are accessible, safe, convenient and visually interesting to encourage pedestrian use of the streets and activate neighborhoods with pedestrian life, and link adjacent land uses to the street.

Pedestrian safety and comfort is enhanced when the impacts of traffic and noise are buffered with planting strips and low scale architectural features, including, walls, fences, seating and other urban streetscape elements. Safe routes to schools are supported with a multi-modal street design that creates designated bike lanes and adequate sidewalk widths.

Policy 7: Create streets that ensure and maximize safe and efficient pedestrian-oriented circulation by incorporating wider sidewalks, reduced traffic speeds, pedestrian-oriented lighting, mid-block pedestrian crossings, bulbouts and curb extensions at intersections and on-street parking to buffer pedestrians from vehicles.

Policy 8: Create interactive vibrant public spaces and uses to maximize pedestrian activity and create place-making features including sidewalk cafes, civic landmarks, public art, gateways, water features, interpretive and way-finding signage, farmers markets, festivals, outdoor entertainment, pocket parks and seating areas, street furniture, plazas, landscaped courtyards, and squares.

Policy 9: Develop a public art opportunity site map to encourage the location of public art in the public realm and in private development areas including the core area, lakeside promenade, civic buildings and use


WIDE SIDEWALK


BULBOUT


MID-BLOCK CROSSING

PLACE MAKING FEATURES






areas, mixed-use areas, parks, gateway areas, Coyote Transit Station, Santa Teresa Boulevard District, Palm Canyon District, West Bailey/Foothill District, urban canal walk areas, Coyote Valley Boulevard areas, Coyote Creek and Fisher Creek trails areas, the Hamlet, and mixed use areas east of Monterey Road.

Policy 10: Create a way-finding signage program for Coyote Valley including creekside and canal areas, the Hamlet historic area and an educational interpretive signage program focusing on history of Coyote Valley.

Policy 11: Streetscape design should focus on the pedestrian realm between land use and travel ways. Pedestrian amenities that offer convenience, comfort, and safety should be provided on all streets. Such amenities included: street trees and landscaping, lighting, telephones, planters with seating, signage and information kiosks, refuse and recycling, awnings, canopies and other streetscape amenities. Following are design guidelines that are aimed at accomplishing these policies:

a. For the urban mixed-use areas of the Coyote Core, Santa Teresa Boulevard District, Palm Canyon District, West Bailey/Foothill District, Bailey Avenue Gateway District, Coyote Valley Boulevard and the mixed-use areas east of Monterey Road, buildings are required to front onto the street with building entries, windows, signage and land use orientation to the street. Sidewalks are twelve feet across, and vary up to 30 feet depending on the intensity of the adjacent use. Trees are in tree wells with on-street parking. Lighting, planters, seating refuse and recycling, street furniture and amenities are also provided.

b. For residential zones and the Urban Canal walk, buildings are setback 10 to 20 feet, with unit and building entries, windows and land use orientation towards the street and canal. Sidewalks are 6-foot wide and are separated from the curb by a minimum 6-foot planter strip. Trees are planted in the planter strip, and at transit stops, the planter area is paved with trees located in wells with tree

PUBLIC ART



grates. Lighting, planters, seating refuse and recycling, street furniture and amenities are also provided. On street parking is provided where possible.

c. For workplaces not in mixed-use zones, buildings are setback 0 to 20 feet or greater, with building entries, windows and land use orientation to the street. Sidewalks are 6 feet and are separated from the curb by a minimum 6-foot planter strip. Trees are planted in the planter strip, and at transit stops, the planter area is paved with trees located in wells with tree grates. On street parking is provided where possible. Lighting, planters, seating refuse and recycling, street furniture and amenities are also provided.

d. Pedestrian-oriented intersection design emphasizes pedestrian, bicycle and transit modes while accommodating emergency vehicles, trucks and cars. Pedestrian-oriented intersection design reduces crossing distances for pedestrians, and ensures pedestrian safety by reducing travel mode conflicts and providing good sight distance for both pedestrians and motorists. To enhance the safety of pedestrians the use of curb extensions, mid-block crossings, highly visible crosswalk markings and adequate time for street crossings all are important. Consider reduced curb radius designs for high pedestrian traffic areas and 25-foot curb radius for turning busses in urban areas. Consider trade-offs between curb extensions and reducing the curb radius to achieve the shortest crossing distance for both streets.

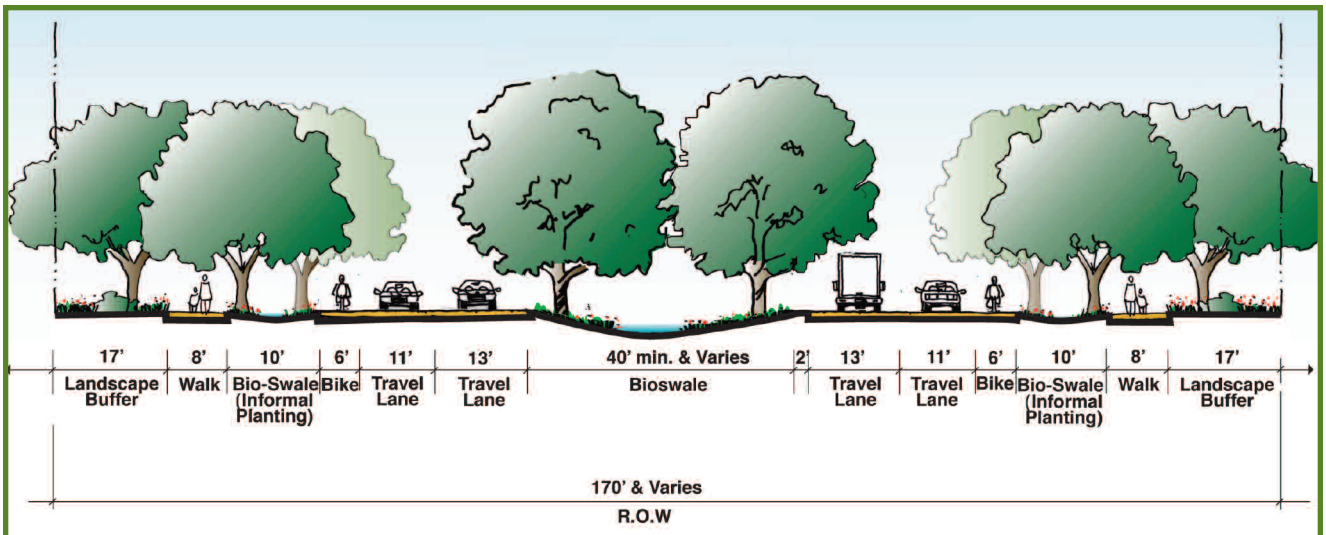
e. Roads carrying larger traffic loads employ more specific pedestrian crossing design strategies. These may include the use of larger medians for a mid-crossing refuge, where appropriate (e.g. Coyote Valley Boulevard.); roundabouts to avoid multiple left-turn pockets and minimize pedestrian crossing length; and grade separations. (Additional discussion regarding the safety and operation of mid-crossing refuge safety and operation is under preparation.)

Policy 12: Pedestrian streetscape amenities should be provided.

ROADWAY DESIGN AND STREET NETWORK

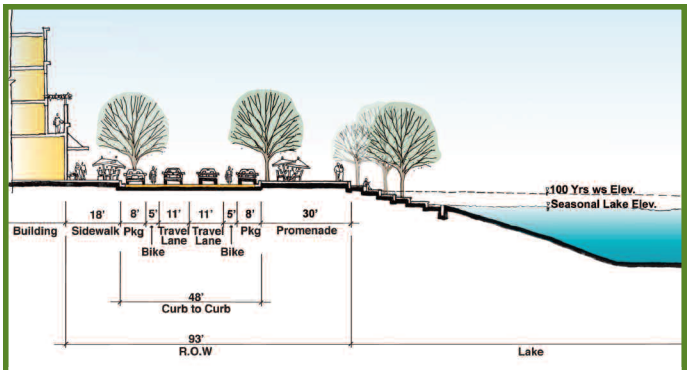
The CVSP mobility strategy prioritizes pedestrian and transit accommodations over private automobile and includes a projected urban reduction in private automobile commuting by about 40% of jobs. Yet even with this reduction, the minimum development of 50,000 jobs and 25,000 housing units would generate substantial automobile traffic. The urban design strategy for traffic mitigation within CVSP starts at the smallest scale (i.e. neighborhood street) and grows over time, only establishing some of the major road infrastructure elements at or near build-out when the smaller urban center and neighborhood streets should dramatically exceed capacity. The CVSP street network consists of internal and neighborhood streets, unique street, and regional connector streets: (Final CVSP Street Sections are under preparation.)

FIGURE 18: CVSP UNIQUE STREET SECTIONS

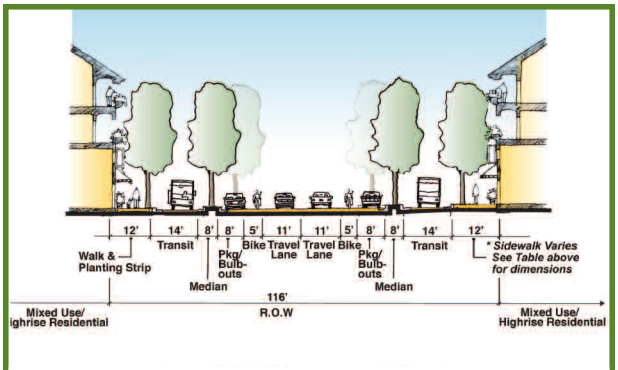


SECTION 1.5.1.5 COYOTE VALLEY PARKWAY

*Note: Roadways are to be sloped toward the median when the median includes stormwater treatment measures.



SECTION 1.5.1.3 SANTA TERESA BOULEVARD (LAKEFRONT)

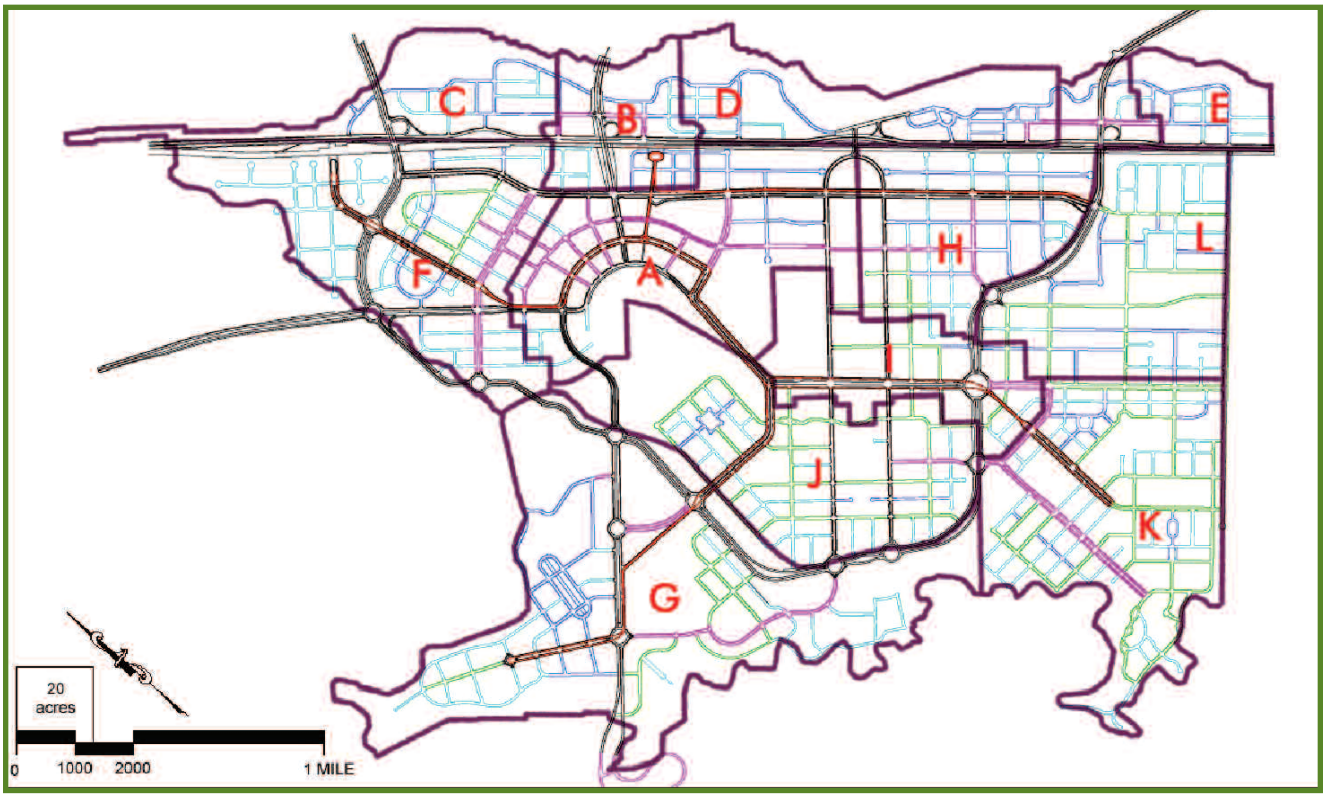


SECTION 1.5.6.2 BAILEY AVENUE WITH TRANSIT

1. Internal and Neighborhood Network

In keeping with CVSP goals of sustainability, the neighborhood street network is designed to minimize paving and concentrated runoff while maintaining efficient service and emergency vehicle access, and guest parking. The CVSP includes the following network of streets:

FIGURE 19: CVSP STREET NETWORK



LEGEND

Public Infrastructure Street Network
These streets create the underlying Infrastructure Road Network for Coyote Valley.

Transit
The transit network is formed through the use of fixed transit guideways. These fixed guideway transit corridors will include:
- Single-side running fixed guideways;
- Double-side running fixed guideways; and,
- Transit stops

Busy Urban Streets
These streets are fixed in their locations. They are designed to:
- Carry fairly high volumes of traffic;
- Provide alternative routes through Coyote Valley;
- Integrate with the urban pedestrian experience;
- Provide primary neighborhood to neighborhood connections; and
- Provide connections to and aligns on civic focal points and public facilities.

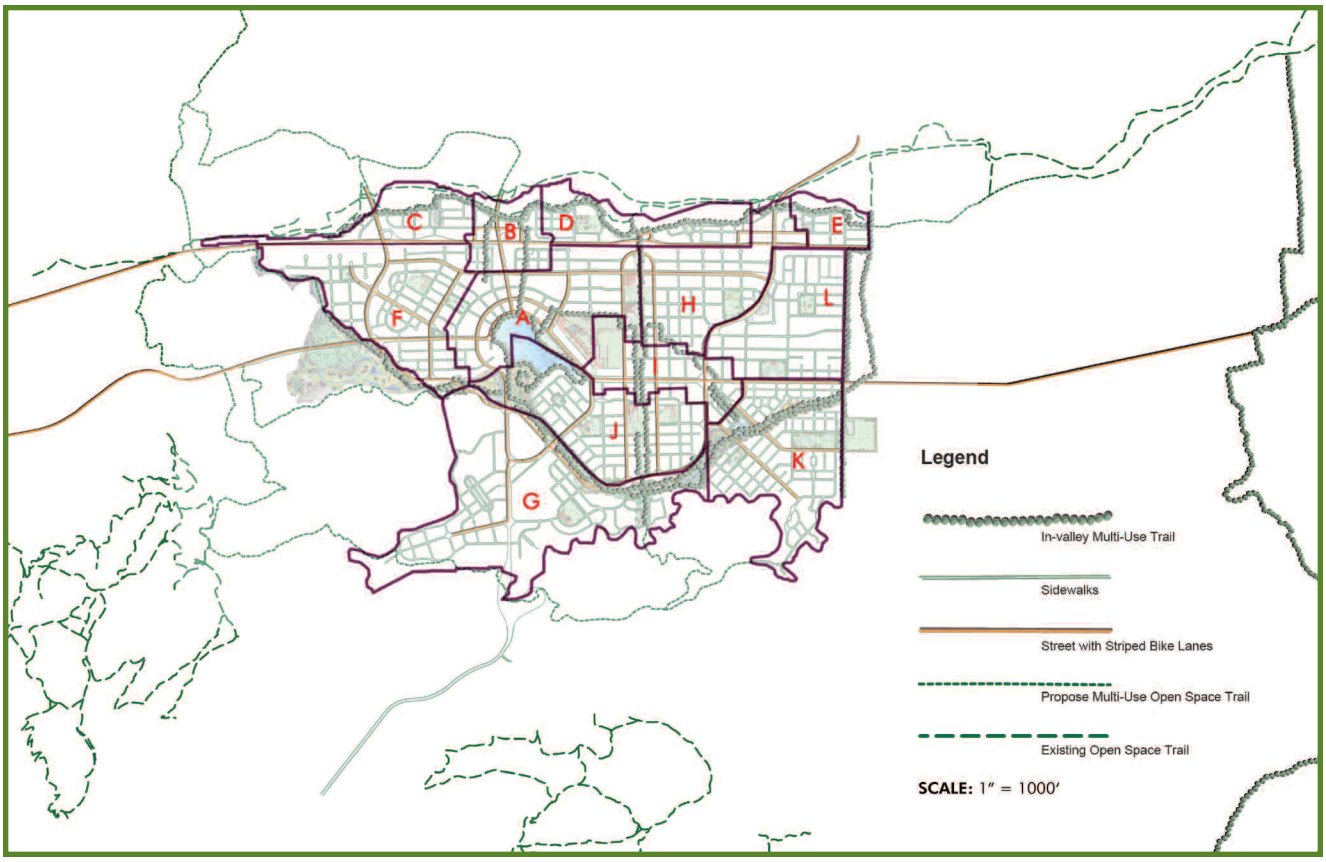
Neighborhood Through Streets
These streets are generally fixed in their locations, but may be modified. They are designed to:
- Provide connectivity through neighborhoods and across Busy Urban Streets;
- Carry local neighborhood traffic; and
- Provides a through street network for in-Valley trips.

Destinations, Connections and Principles
These streets have fixed beginning, destination and property boundary points. They are designed to:
- Provide routes serving neighborhood and community facilities and destinations.

Block Principles and Patterns
These streets are flexible in their locations. They are designed to:
- Provide a neighborhood network of through streets;
- Provide streets encompassing blocks generally not exceeding four-acres in residential and mixed-use areas.

STREET NETWORKS

FIGURE 20: PEDESTRIAN-FRIENDLY STREETS



PEDESTRIAN FRIENDLY STREET

Minor Residential Streets and Sub-Block Travel Ways

These include private drives, stub alleys, and auto courts are that are generally discontinuous travel ways affording access to a limited number of parking spaces, garage entrances or building entrances. In the CVSP private Drives are envisioned to function like auto courts but are more linear and thus appropriate for lower densities. Stub alleys refer to closed travel ways that only serve parking, garage entrances and service and utility uses, while. Auto courts typically serve both garage entries and building entries where multiple units cluster around a courtyard. They are most successful when their surfaces are more typical of patio or plaza paving rather than asphalt and curbs.

Note: Figure 21-Under Preparation (Typical Plans and Right-of-Way Sections)

Alleys (Private Streets)

In the CVSP, alleys refer to travel ways that are open to streets at both ends and only serve parking, garage entrances and service and utility uses. They allow narrow homes to have a more sociable street frontage (i.e. front porch, street stoop etc.) instead of living behind their garage. At middle densities a strict pattern of street-alley-street-alley etc. may require an inordinate amount of paving. Creative alternatives take advantage of alley access garaging to allow homes to front on public spaces other than streets. In this way, small paths and courts are fronted by homes adding to the "sociable public realm" where windows and porches look on and share a common lawn, garden, gathering area.

Lanes (Private Streets)

What the alley is to the stub alley, the lane is to the auto court. A lane is a travel way (possibly a private street) open to streets at both ends that is primarily pedestrian in nature, use and detail, but does accommodate limited local vehicle access. Buildings typically include primary and secondary entrances off of lanes as well as garage access. There is no separation between vehicle and pedestrian in this lane. The lane concept is most successful when every component of its design and character serves pedestrians and social gatherings, while maintaining an efficient, more subtle automobile service.

Perimeter Neighborhood Streets

Many areas within the CVSP can be described as perimeter neighborhoods. These are defined as neighborhoods with little likelihood of significant through traffic. Typically, they are bordering surrounding open space or internal open space where through roads are limited to particular designated locations. In these areas, streets and rights-of-way can be the narrowest, creating the least possible impervious surface for neighborhood streets. In these streets, sidewalks are adjacent to parking bays, and planting strips separate sidewalk from the travel way between parking bays.

Local Street Network

In CVSP's core neighborhoods, local neighborhood streets form an interconnected network that would accommodate through traffic as well. Here travel ways are slightly wider, planting strips are continuous, and sidewalks are more comfortable for two abreast walking.

Mixed-Use and Neighborhood Center Streets

Streets in neighborhood centers and fronting mixed-use buildings would typically experience greater pedestrian and parking activity, and continuous planting strips get "beat up" from frequent foot traffic. Here the hardscape sidewalk needs to run to the parking bay curb within the passenger door zone, and at least a stepping-stone between parked cars. Right-of-way excludes the outer six feet of sidewalk, but this sidewalk is required within the property. This allows/encourages ground floor commercial buildings to include over the sidewalk canopies and porches, even with structural support.

Workplace Streets

Within CVSP, several areas are designated exclusively for workplace. These areas are either in core activity centers (Bailey Avenue/Monterey Road/Coyote Valley Boulevard Intersection; Coyote Creek Golf Drive/Monterey Road/ Coyote Valley Boulevard intersection; and the southern roundabout intersection of Santa Teresa Boulevard/ Coyote Valley Parkway), or along the northern and northwestern boundaries of the Valley.

In these core activity centers streets and pedestrian ways, as well as buildings, form critical gateways to adjoining mixed-use and residential neighborhoods. These areas are designated with some of the highest workplace floor area ratios (FAR's), which necessitate significant use of structured parking. Final street design in these areas needs to reasonably accommodate the loading and unloading of workplace parking into the street network at a rate of about 0.7% (of total parking provided) per minute. Each of these areas has detailed individual street design criteria and example plans within their respective Planning Areas. (See Appendix 6) Planning Areas Detail for Planning Areas B, H, and I.

In the northern and northwestern boundary areas street layout should, in general, radiate from transit stops forming a continuity of animated and quality pedestrian experience from transit stop to workplace primary entry without the crossing of large parking fields. These routes should incorporate parks and plazas that serve as employee fresh air, recreation and outdoor lunch dining.

Streets with Transit

Like VTA's light rail in Downtown San José, the CVSP Bus Rapid Transit (BRT) transit vehicles would generally travel adjacent to the sidewalk where coffee and newsstands at stops can serve transit patrons most easily, and where boarding is easiest. Running at about 12 minute intervals, leaves the fixed guideway area mostly empty. Paving change, bio-swales between tire tracks (when located outside of the Coyote Core); landscape strips and intermittent railing help demark this guideway area. The fixed guideway is deliberately routed along the Coyote Core's main shopping street and Santa Teresa Boulevard's office corridor to add an urbane animation to these districts.

2. Unique Streets and Districts

Central Commons Perimeter Streets

Running east/west through the center of the CVSP Urban Area is a Central Commons linear park ranging in width from 100 feet to 300 feet and flanked by school buildings, residential and mixed-use development. Fronting these uses, two-lane streets some 900 feet apart provide easy cross-valley connections. Side street parking is available on both sides of these perimeter streets. Bicycle lanes would be located on each side of the perimeter. Pedestrian crossings at intersections are only 32 feet curb to curb.

Santa Teresa Boulevard

Santa Teresa Boulevard, from the Lake to the southern segment of the Coyote Valley Parkway, defines a professional and mixed-use urban district. In this location it is four-lanes wide with a central median park that flares from 30 feet at the southern end to more than 60 feet wide at the northern end near the Lake. Like Bailey Avenue as it enters Coyote Valley from U.S.101, Santa Teresa Boulevard lines up with an axial view to Spreckels Hill and the International Park, and is characterized by curb-side parking, the fixed guideway transit, and gracious sidewalks flanked by commercial use arcades. Both termini of this Boulevard provide urban park opportunities similar in scale to Downtown San José's Plaza de Caesar Chavez. Bisecting the Boulevard's length, a grand plaza provides an urban pedestrian linkage of the Central Commons. This spacious, enhanced paving, plaza provides 5,400 square feet of event staging.

Coyote Core District Streets

The Coyote Core District street pattern is a very small block grid of radials extending from the Lake and crossing semi-concentric ring roads. Block size is similar to San Francisco's North Beach and Financial District (in the 300 foot x 400 foot range). The first ring road, Santa Teresa Boulevard promenade, is an enhanced pavement, very pedestrian oriented, section of Santa Teresa Boulevard that fronts the Lake and would be an opportunity for a "restaurant row". The second ring road (the northern section being a new Bailey Avenue) includes the urban excitement and animation of transit ways and is expected to be CVSP's "downtown" shopping district. The third ring provides additional commercial frontage and serves as access to the Coyote Core's large shared parking structures.

Small blocks and their short distances between intersections maximize flexible pedestrian movement. The elimination of left turn lanes keeps pedestrian crossings at intersections to 24 feet (32' at bike lanes). However, both of these factors can spell vehicular gridlock at build-out. It is expected that at some point in CVSP's growth this small block Coyote Core District grid would shift to either a "no left turn" network or a revised design to better accommodate pedestrian and vehicular circulation.

Coyote Valley Parkway

The CVSP's mobility strategy is built upon a complex, interconnected urban network of pedestrian and bicycle friendly walks, paths, trails and small streets; all oriented to simple, doable, and fixed guideway transit network that is fun to use and ties to the Coyote Station, CVSP's regional transportation interface. But it must ultimately be recognized that as CVSP grows, even with its commitment to a comprehensive transit program and Transportation Demand Management (TDM) programs, this network alone could be overwhelmed. Rather than intersperse the small-scale street network with large arterials, CVSP includes a gracious encircling Parkway designed with a series of roundabout intersections that provide for higher vehicle volumes at lower speeds on narrower (and thus easier to cross) travel ways. This Parkway winds through a wide, forested landscape swath that provides a significant portion of CVSP's needed bio-filtration and detention functions. West of Santa Teresa Boulevard, it parallels the restored Fisher Creek affording pleasant open space vistas, a reminder of the Valley's natural environment, and a relaxed counterpoint to the urban vitality of the Santa Teresa Boulevard or the Coyote Core District. Coyote Valley Parkway has three distinct sections:

a. The northern section links the northern U.S.101 interchange with Bailey Road near IBM and provides adjacent access to about half of CVSP's industry driving jobs.

b. The southern section links the southern U.S.101 interchange with Santa Teresa Boulevard. It connects to the Coyote Core via Coyote Valley Boulevard, and directly to the southern terminus of the Santa Teresa Boulevard District. Its broad forested landscape serves as a buffering edge to CVSP's existing estate residential area in Planning Area "L".

c. Linking these two reaches is the western section, which parallels the realigned Fisher Creek Corridor.

This reach's bio-filtration swales and forested landscape would be constructed along with the Fisher Creek realignment.

While Coyote Valley Parkway provides a buffer and definable edge to individual neighborhoods it is at the same time sufficiently permeable to maintain neighborhood interconnectivity. The pedestrian advantage of roundabout design is that the crossing of travel ways is broken into small narrow segments (32 feet), and roundabout geometrics automatically slow vehicles down.

The Parkway, like arterials, has long distances between crossings. To mitigate the impact on neighborhood connectivity of these long distances CVSP has included several grade-separated crossings both under and over the Parkway. Under-crossings are designed to cross only one travel direction at a time (26 feet) and be wider than they are long.

3. Regional Connector Streets

Santa Teresa Boulevard North; Bailey Over-the-Hill; Santa Teresa Boulevard/Hale Avenue South

Santa Teresa Boulevard north of Bailey Avenue is an important circulation and visual gateway into CVSP and especially the Coyote Core. Like other key Coyote Core radials, its axial focus centers on a dramatic water jet in the Lake. From its connection to Bailey Avenue north to its roundabout intersection with Coyote Valley Parkway it would largely keep its current improvements with modifications to landscape and sidewalks to reflect a more urban character. North of Coyote Valley Parkway it would revert to a more informal character, emphasizing the approximately one-mile open space break between CVSP and the existing southern San José urban neighborhoods.

Bailey Avenue west of Santa Teresa Boulevard would first transition from an urban two lane street to a more informal two lane street with 20-foot wide landscaped median as it traverses the natural saddle between Spreckels Hill and the northern hills and then crosses Fisher Creek and intersects at a roundabout with Coyote Valley Parkway. From here it would retain and enhance its existing improvements fronting IBM (4 lanes plus median). Further west it includes a leg of the fixed guideway transit network and becomes the east west "Main Street" of the Planning Area "G" mixed-use neighborhood center. (See Appendix 6, Planning Areas Detail) As Bailey Avenue leaves CVSP to the west it may be improved to a split pair of two-lanes (each way) roads as it climbs up the Western Hills to Calero Reservoir (still under study).

Santa Teresa Boulevard south of Coyote Valley Parkway's southern roundabout would continue with 4 lanes for only about 1,000 feet to facilitate vehicle loading onto Santa Teresa Boulevard from the District's southern terminus employment center. From here it narrows to two lanes with a bio-filtration center island and fronted by sidewalks and homes. For the next approximately 1,000 feet, before it reaches the Greenbelt, it is flanked by cherry orchard rows as a transition into the Greenbelt rural/agricultural area. As Santa Teresa Boulevard crosses Palm Avenue, it becomes Hale Avenue and continues south through the Greenbelt. The CVSP plans no widening to Hale Avenue, but supports rural character landscape and pedestrian and bicycle paths that would enhance the rural/agricultural character and quality of the Greenbelt.

High Volume Grid Network

At full build-out, CVSP's highest traffic volumes would be located near its most important regional interface, its connection to Monterey Road and U.S.101. Here, a high volume grid is formed by:

- North-South: U.S.101, Monterey Road, and Coyote Valley Boulevard; and
- East West: Coyote Valley Parkway (U.S.101 to Coyote Valley Boulevard), Bailey Avenue (U.S.101 to Coyote Valley Boulevard), and Coyote Creek Golf Drive (U.S.101 to Coyote Valley Boulevard).

This "super grid" has several unique design challenges including:

- ***Crossings of Coyote Creek County Park:*** All three-east west connections require crossings of the Coyote Creek County Park. Bailey Avenue's first phase is complete and its full buildout crossing has already been mitigated and approved. Both Coyote Valley Parkway and Coyote Creek Golf Drive would require new Coyote Creek crossings. These would be partially mitigated by the elimination of two or three existing crossings. While the new crossings would be larger, they may actually have less habitat impact than the current crossings that channel the creek into small culverts.
- ***Crossing over the railroad lines:*** Railroad over-crossings are required to be especially high (under-crossings are prohibited in this area due to the high water table), requiring 26 feet of clearance versus about 17 feet clear for road over-crossings. Getting up to and down from these over-crossings requires some 800 feet horizontally.

Accessing Monterey Road:

Monterey Road would remain two lanes in each direction, and traffic signals would be kept to a minimum to provide additional regional north-south capacity. CVSP proposes a modification/relocation of the two signals currently planned just north and south of Bailey Avenue (one is built), and no other signals along Monterey Road. All three Monterey Road over-crossings involve traffic movements that are intertwined with the local street network and help connect these neighborhoods to the larger Coyote Valley to the west.

Monterey Road Grade Separations

There are four locations where grade separations are proposed to allow access across Monterey Road and the railroad tracks. These include:

a. ***Coyote Valley Parkway Grade Separation:*** The proposed Coyote Valley Parkway Grade Separation would connect U.S.101 to Monterey Road and to the on-site merge and loop Parkway. The proposed grade separation would consist of a bridge structure over the Coyote Creek and an overpass structure over Monterey Road and the Union Pacific Railroad (UPRR). It would include construction of a partial cloverleaf as a ramp connector to Monterey Road for northbound and southbound returns to Coyote Valley Parkway. Coyote Valley Parkway would consist of three lanes of traffic in each direction with a minimum eight-foot shoulder on each side and a 12-foot shared-use trail on one side.

b. ***Bailey Avenue Grade Separation Modification:*** Bailey Avenue is a four-lane arterial crossing over UPRR and Monterey Road to U.S. 101. The overpass includes two lanes of traffic in each direction. The Bailey Avenue Grade Separation Modification Project would widen the overpass to the ultimate width of three lanes eastbound and four lanes westbound, with seven-foot Class II bike lanes and sidewalks on each side for pedestrians, and would modify the at-grade connectors to Monterey Road. The proposed grade separation would connect Monterey Road to Coyote Valley Boulevard that would run parallel to and west of Monterey Road.

c. ***Laguna Avenue Grade Separation:*** The proposed Laguna Avenue Grade Separation would interconnect developments east and west of Monterey Road at a location south of existing Laguna Avenue and would accommodate the relocation of northbound Monterey Road to the east. The underpass would connect northbound Monterey Road to southbound Monterey Road through a wide loop for returns. It would include an underpass structure below UPRR and an under-crossing structure at Monterey Road. The proposed grade separation would include two lanes of traffic in each direction, as well as loop returns and merging lanes.

d. ***Coyote Creek Golf Drive Grade Separation:*** The proposed Coyote Creek Golf Drive Grade Separation would connect U.S.101 to Monterey Road and the Development Area via existing Coyote Creek Golf Drive. The grade separation is intended to provide three lanes of traffic in each direction on Coyote Creek Golf Drive. The limits of the separation would extend from the terminus of the U.S.101/Coyote Creek Golf Drive Interchange east of Monterey Road to approximately 200 feet west of Monterey Road. It would include an overpass structure over UPRR and Monterey Road and a bridge over Coyote Creek County Park. The planned grade separation consists of a partial cloverleaf east of Monterey Road connecting Coyote Creek Golf Drive to Monterey Road North and routing of traffic from northbound Monterey Road to Coyote Creek Golf Drive. It would also include a ramp connector and single-lane loops along Monterey Road for traffic returns.

Coyote Valley Boulevard

Because Monterey Road is bounded by the railroad, it cannot serve as a feeder arterial for most of Coyote Valley. Coyote Valley Boulevard is envisioned to perform that function. It directly accesses all three connections to Monterey Road and U.S.101 and in turn feeds Coyote Valley along the bulk of its north south length. It has longer intersection spacing than the urban grids to the west. It would carry significant auto traffic, significant truck traffic, and for 1-1/2 miles, from Coyote Station to the southern reach of Coyote Valley Parkway, would include a fixed guideway transit line. It would contain two lanes in each direction, double left turn lanes at intersections, and the fixed transit guideway, a Boulevard frontage Road, and bike lanes and sidewalks in most sections.

PARKING Generous amounts of surface parking is potentially a greater roadblock to the creation of a pedestrian-friendly, transit-oriented environment than large roads. In most instances, standard levels of surface parking actually force people to drive because parking convenience interferes with pedestrian mobility.

Also, parking ratios are often conceived to accommodate the peak demands where single use, on-premises private parking is sized to accommodate that use's peak demand, no matter how infrequent that may be. Thus, the office parking lot is full during working hours five days a week, a church lot is full on Sunday morning, and a theatre lot is full on Friday and Saturday nights. The CVSP parking strategy differs from typical suburban approaches to surface parking which generally manifest in two ways:

Suburban Approach

- Individual buildings, or uses, are sited with their own parking adjacent and therefore are separated from other uses by the parking lot, or lined up in a single row all facing a parking field. This is the case with: "strip" commercial uses like the grocery/drug store anchored convenience center, big-box retail centers, and individual stores or offices.

- Individual uses are grouped around a "pedestrian friendly" court, "campus" or mall, but then collectively removed from the rest of the urban environment by a proportionally larger parking lot. Regional mall shopping centers and corporate campuses follow this model.

CVSP's three-point program to reduce parking impacts includes:

1. Strategies to Reduce Urban Parking Need.
2. Shared Parking
3. Structured Parking

Strategies to Reduce Urban Parking Need

Since the primary thrust of the mobility strategy for CVSP is to get people out of their cars by providing a complete pedestrian and bicycle circulation network and substantial private funding of transit systems, it assumes a substantial reduction in private automobile trips. The CVSP conceives this hypothesis as a real dollar trade-off to justify investment in transit versus investment in roads and parking. This concept underpins CVSP's numerical scaling program, which projects commuters by "internal capture," and bases travel mode on type, characteristics and location of work. In general, it assumes that the lowest density, least transit accessible and mostly surface parked workplaces have the highest percentage of lone drivers commuting. Workplaces with higher densities necessitate more structured parking, and those closer to transit would have more walkers, bikers, and transit commuters. Additionally, the urban core and mixed-use workplaces (often sharing district parking) have the highest non-automobile commute rates. These assumptions generate projected peak hour vehicle trips, peak hour fixed guideway transit usage (7,000 trips), and workplace parking requirements (an overall average of 56 parking spaces per 100 jobs). These projections serve as a model for the CVSP vision and are not necessarily expected to replicate a typical traffic model generated for the Environmental Impact Report (Parking Appendix 7, under preparation).

In general, commercial and retail parking would also be reduced because of the ease of non-automotive mobility in the CVSP. Commercial and retail within mixed-use structures in Coyote Valley is projected to require one space for every 330 to 500 square feet of building. For retail parking, reductions have been derived by first establishing typical suburban parking ratios and then applying an urban reduction percentage. (see Table 6) These parking ratios, derived from CVSP's projections of the impacts of its commitment to non-automotive mobility are then compared to various parking ratios including current City of San José ratios and those based on suburban standards, and adjusted accordingly to establish the CVSP parking strategies (see Table 7) for various uses and locations.

(Note: Tables 5, 6 and 7 are under preparation.)

Shared Parking

The strategies outlined above are based on calculations and extrapolations intended to reduce demand during that particular use's peak parking period. Shared parking strategies achieve further reductions by offering combined parking facilities shared by uses with different peak periods. This strategy involves the tabulating of parking demands over time of day and day of week for different uses sharing the same parking facility. The cumulative total parking demand for any time of day can be substantially less than the addition of each use's peak demand. CVSP's numerical scaling projection includes a shared parking analysis for a likely mix of uses within its mixed-use urban shared parking districts (including opportunity sites faith-based facilities). This analysis reveals a potential parking need reduction of 30%.

Among all the mixes of uses, sharing parking between office and faith-based uses or nighttime entertainment (night clubs and cinemas) has the biggest impact. If the faith-based use's parking

needs were not a part of the mix, the analysis would show only a 14.4% reduction. In CVSP, office parking needs dominate so strongly that a very substantial amount of uses that are largely empty during the business day can be added with only minimal increase in parking spaces. An example of such additional parking potential can be realized at a performing arts venue where the attendance at an evening performance could be accommodated in a district structure sized primarily for daytime office use.

Beyond the mixed-use centers with district parking, virtually all workplaces contain a surplus of weekend parking that becomes potential opportunity sites for faith-based uses. Since all of CVSP's workplace environments are adjacent to neighborhood centers, faith-based facilities have an opportunity to acquire smaller parcels in positions of civic importance in neighborhood centers and arrange for nearby workplace parking use on weekends. In Coyote Valley multi-denominational faith-based facilities located in places of civic prominence would celebrate cultural diversity.

Structured Parking

The CVSP includes a structured parking strategy that is aimed at achieving greater pedestrian proximities, and minimizing land coverage as exemplified in the arithmetic listed below:

In general, there is a considerable variation in the costs parking depending on type. For instance, an open ventilated, above-ground efficiently sized stand-alone parking structure may cost between $9,000 and $16,000 per space. Surface parking with landscaping costs about $2,000 per space. Enclosed and mechanically ventilated parking, under or above ground supporting or within a building may cost between $22,000 and $26,000 per space. (See Structured Parking Costs, Figure 22.)

The CVSP land use and mobility plan bonus for structured parking

The CVSP land use plan clusters higher density workplaces (which need structured parking to achieve required FAR's) closest to the fixed guideway transit network, Coyote Core and neighborhood centers. Because of this, CVSP's recommended parking ratio is 66 spaces per 100 jobs for private workplace structured parking and 60 spaces for district parking versus 100 spaces per 100 jobs for the more remote surface parking land use typologies. With this bonus, 0.66 structured parking spaces per job matches the cost of 1.00 surface parking spaces per job when land costs $20.77 per square foot. And 0.60 structured parking spaces per job matches the cost of 1.00 surface parking space per job when land costs $18.24 per square foot.

Structured Parking Finance Strategies

Figure 23 describes the necessary market value of land to make structured parking economically competitive with surface parking. In today's market (2005-2006) residential land value may already be above the $35.09/square foot necessary to make 1:1 structured parking economic. But workplace land value may still be below the $18.24/square foot necessary to make even the 0.6:1 structured parking economic. This has not always been the case. In the technology boom of the 1990's, workplace land values well exceeded $35/square foot and through the late nineties there was the beginning of a shift to structured parking throughout San Francisco Bay Area suburbs, serving established suburban campus users (Oracle, People Soft), speculative office developers (Bishop Ranch), and the transformation of suburban retail centers to urban places (Walnut Creek). As part of CVSP's balanced jobs/housing development timing, temporary cross-subsidy strategies to finance competitive cost gaps may be necessary. These strategies are discussed in Appendix 8.

STRUCTURED PARKING STRATEGY

Calculate the coverage of the structured lot by dividing the area of a surface lot by the number of stories of the structured lot. Given the typical requirement of about 360 square feet per stall for landscaped surface parking, it is expected that structured parking would be a little bit tighter at about 300 square feet per space with equivalent landscaping only on the ground floor. Therefore, the space requirements for 100 spaces are as follows: surface parking requires 100x360=36,000 square feet. A four-story structure requires 100x300/4=7,500 square feet.

FIGURE 23: ECONOMICS OF STRUCTURED PARKING

Cost comparison example: Surface vs. In Building Parking vs. Stand alone Structure

1. PRIVATE SURFACE PARKING	2. PRIVATE PARKING IN OR UNDER A BUILDING	3. FOUR-STORY STRUCTURED PARKING
Land with 20% landscape = 360 square feet/ space • Construction = $2,000/space 100 spaces = $200,000 • Plus, cost of 36,000 square feet of land	Land and landscaping in building = 0 square feet • Construction = $24,000/space • 100 spaces = $2,400,000	Land with 20% landscaping: 300 square feet/4 = 75 square feet • Construction = $12,000/space • 100 spaces = $1,200,000 • Plus, cost of 7,500 square feet of land

With this simple comparison a little algebra reveals that:

- **In or under building parking matches surface parking costs when land costs are $61.11/square foot**
- **Four-story structured parking matches surface parking costs when land costs are $35.09/square foot**

PUBLIC TRANSPORTATION

Regional Connections

CVSP is expected to take more than 40 years to build out. Its regional public transportation strategy works. Particular emphasis is placed on Caltrain, and future U.S.101 high occupancy vehicles (HOV) opportunities. Also, connectivity to the following facilities such as the Mineta San José International Airport and the VTA light rail and bus transit systems are critical to the successful implementation of the CVSP mobility strategy:

Airports

A critical component of any global job center is quick and convenient airport access. In this regard, Coyote Valley has a regional competitive weakness when compared with Silicon Valley north of downtown San José (literally surrounding San José Norman Mineta International Airport) or the upper peninsula, from Palo Alto to San Francisco, which enjoys multiple surface street and freeway access to San Francisco International Airport (SFO). This competitive disadvantage (similar to the East Bay's Tri-Valley job center) needs a compensating strategy. Coyote Valley is located 17 miles from the San José Norman Mineta International Airport, 52 miles from SFO and 10 miles from San Martin's private airfield. The urbanization of CVSP would support San Martin airfields' expansion as a corporate jetport. HOV lane express shuttles to San José Norman Mineta International and SFO, as well as Caltrain to SFO, would be supported by CVSP. Helicopter service may also be supportable by CVSP corporations.

Rail

Caltrain, BART, and VTA light rail transit constitute the network of regional rail service that can support CVSP. VTA light rail may some day extend south from its Santa Teresa terminus, and CVSP can accommodate a connection to its own fixed guideway transit system at Santa Teresa Boulevard north of the Lake, or ultimately replace its fixed guideway network with VTA light rail.

CVSP most significantly commits to Caltrain as the center of its multi-modal transit hub (Coyote Station.) Completion of the final mile or so of double tracking to the CVSP Coyote Station is scheduled for 2010. With this, double track commuter service on the Caltrain system all the way to San Francisco would be in place.

The San José City Council has provided direction that their preferred alignment for High Speed Rail in south San José is along Monterey Road. (Additional discussion may be provided after the completion of the EIR.)

VTA Bus System

Currently VTA runs bus routes through Coyote Valley, which would remain, and potentially connect to CVSP's fixed guideway transit network for accessibility to CVSP's Coyote Station and other destinations. Like CVSP's fixed guideway transit, VTA buses can be equipped to trigger priority crossings at intersections.

FIGURE 24: REGIONAL MAP

Private Regional Transit

A significant part of future transportation efficiency would stem from the rapid proliferation of GPS location tracking devices (including individuals via their cell phones/PDA's) coupled with routing/sorting software that create flexible group trip scheduling in real time. It is expected that this, coupled with a regional network of HOV lanes would spawn all manner of private small local and regional transit enterprises in addition to already active HOV programs such as airport shuttles and corporate van pools. While CVSP itself is built upon a local spoke and hub transit system connecting to regional fixed rail (Caltrain) it is the lack of such organization at other stations that limits transit use. Consequently, the CVSP transit hub would be as much a hub for flexible HOV programs as it is a transfer point from Caltrain to the local CVSP fixed guideway transit network.

Fixed Guideway Transit

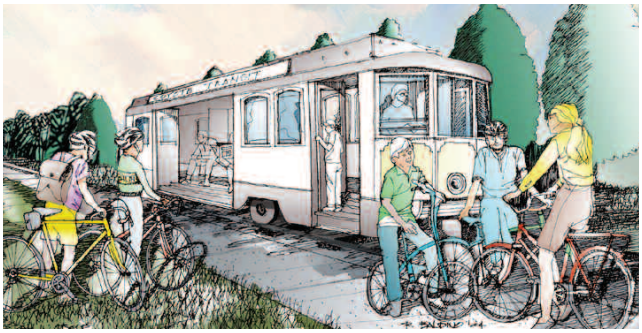
A fixed guideway Bus Rapid Transit (BRT) system is planned so everyone in Coyote Valley has free transit access to anyplace else in the Valley and to the Coyote Station. The fixed guideway transit line comes to within 1,500 feet of about 85% of residents and workplaces; small vans cover the remaining areas as well as provide transportation for those with special needs. A fleet of GPS/cellular cabs, and merchandise delivery services all make it possible, even preferable, to move about the Coyote Valley without an automobile.

Emanating from Coyote Station, the armature of the CVSP transit mobility would start out initially as a Bus Rapid Transit (BRT) system along fixed guideway spokes. The proposed BRT is envisioned as a self-powered rubber-tired vehicle that travels on the dedicated, fixed guideway where it has signal preemption, or when necessary on regular city streets. There are numerous advantages to this approach over either a full light rail system or simply a traditional bus. These advantages include:

1. The fixed component provides the necessary infrastructure armature appropriate for the clustering of mixed-uses and higher densities. Without a fixed guideway, higher densities and commercial enterprises would more likely require location on larger streets where automobile access and exposure is greatest.

2. Along the fixed route the BRT system controls intersection signalization giving it an advantage over automobiles. The fixed guideway, like VTA's light rail in Downtown San José, travels adjacent to the sidewalk where coffee and newsstands at stops can serve transit patrons most easily. The fixed guideway is deliberately routed along the Coyote Core's main shopping street and Santa Teresa Boulevard's office corridor to add an urbane animation to these districts.

3. As a rubber tired, self-powered vehicle, the BRT vehicles can more rapidly change to new technologies (i.e. starting as propane powered hybrids, and refitting to hydrogen power in future).



Additionally, they are not subject the regulatory commissions who control rail systems, can be designed creatively for easy wheelchair and bike access, and can incorporate open-sided and partially enclosed sections that are more fun than regular bus and trains.

4. The flexibility to travel on regular streets is a particular advantage for phasing. The BRT system can be initiated in the first phase along with Coyote Station. The vehicles can travel on relatively short sections of fixed guideway and continue on existing streets until other areas develop. Even at build-out the ability to travel on city streets allows for special time and weekend routes as necessary. Finally, a fixed guideway does not have to extend all the way to a remote service yard.

The success of both In-Valley and regional transit is predicated on its ability to match the automobile in a whole variety of factors including: convenience, speed, "cool factor", interest, entertainment, stress reduction, predictability, reliability, and economy. Waiting and transferring are two of the most unattractive parts of using transit compared to driving. New technologies can assure that vehicles arrive simultaneously at transfer points, and information on real time BRT arrivals can be displayed on screens at each stop and even available through cell phones and PDA's.

CVSP has planned that the fixed guideway transit system be free for travelers (dramatically speeding up boarding) and funded as part of the overall community maintenance district. The experience of other transit agencies has found that if a system is "free" to riders, ridership goes up significantly.

Buses and Vans

The extent of the fixed guideway system coverage requires very limited supplementary bus routing to assure all CVSP residents have transit access. This may most efficiently be done in a flexible "on call" fleet of smaller buses and vans, as well as private taxis.

Private Transit

A healthy "private vehicle for hire" fleet completes the non-private car mobility package. Vehicles for hire are in two forms, car with driver (taxi), and car borrowing (rental car, car share clubs, corporate car borrowing programs). A transit system is most reliable when there is an active taxi service as a back up. Like the flexible bus/van system, GPS location tracking devices (including individuals via their cell phones/PDA's) can make a private taxi fleet far more efficient and provide a real livable income for cab drivers even in a community the size of Coyote Valley. Car borrowing or renting is also important for the 5% of trips requiring a specialized vehicle (pickup truck, SUV to the mountains, formal event, work travel outside of transit supported area, etc.)

This combination of transportation options can significantly reduce the incidence automobile use. Between substantial reductions in private car for commuting to the 50,000 jobs, private cars for out-commuting, and most substantial reduction in in-valley auto travel, one could reasonably expect this transit system to replace more than 20,000 private cars.

TRANSPORTATION DEMAND MANAGEMENT

Transportation Demand Management (TDM) programs for the workplace are a key component of encouraging non-automobile commuting and minimizing workforce parking needs. The most equitable approach to managing parking demand, which the CVSP advocates, is a revenue neutral system that "charges" employees for a parking space and returns that money to employees who don't use a space. Other TDM-based incentives include cab fare reimbursement, a small fleet of loaner cars for business travel, HOV parking priorities, provision of bike lockers and changing rooms with shower stalls, and shuttle services. (See Appendix 9 for a comprehensive description of CVSP valley-wide Transportation Demand Management Measures).

Objective 5: Encourage non-automobile commuting and minimize workforce parking needs.

Policy 13: Transportation-Demand Management (TDM) should be used in new developments to maximize non-automobile commuting and manage workforce parking needs (see TDM measures in Appendix 9)